RESEARCH BRIEF:

Foundational Research to Enable a National Study of Nursing Student Attrition

Nursing student attrition is a widely acknowledged problem; however, the myriad of inconsistent definitions and methods by which attrition is measured prevents large scale research projects. This paper explores the results of two studies. Study 1 examined 52 different nursing programs and sought to understand and catalogue the common methods used to compute nursing student attrition. Study 2 was a larger scale survey (729 nurse educators spanning 529 nursing programs) and explored the variety of reasons for nursing student attrition. Both study 1 and study 2 serve to uncover the critical details necessary for effective research into and prevention of nursing student attrition. Additionally, this paper outlines how ATI is able to provide a consistent attrition metric across the majority of the nursing programs that use its products.

INTRODUCTION

ATI continuously evaluates its products' performance to ensure that the best possible results are delivered to future nurses. For several of ATI's products, nursing student attrition is a key performance indicator used to evaluate the products' success. Although a seemingly straight-forward concept, no agreed upon method for calculating nursing student attrition exists. Beyond preventing any large-scale validation of ATI products, this variability in the calculation of attrition is especially distressing when one considers the personal, professional, and societal implications associated with each instance of nursing student attrition. In order to help provide clarity and consistency to the topic of attrition, this paper explores three topics:

- What are the typical methods for calculating attrition?
- What consistent metric is available for understanding attrition?
- What is the most commonly cited source of nursing student attrition?

METHODS FOR CALCULATING ATTRITION

Although state boards of nursing frequently require nursing programs to report attrition rates, the specific definitions of attrition frequently vary by state. For example, the state of Pennsylvania (2010) defines nursing student attrition as "*When students leave a program before graduation, it is known as attrition.*" In contrast, the state of Arizona (Randolph, 2010) defines nursing student attrition as "*The percent of students from the original cohort who do not complete the program in a specified time-frame.*" Of note, Arizona differs from Pennsylvania in that their definition of attrition incorporates a time frame and a cohort specific group (i.e., transfer students are not included in Arizona's computation). When one examines the definition used by an accrediting body like the National League for Nursing Accrediting Commission (2012), yet another version of attrition can be found (referred to as "Program Completion Rate"): "*The number of students who complete the program within 150% of the time of the stated program length (the length of the program adjusted to begin with the first required nursing course).*" Although Arizona's time based definition looks similar to the NLNAC's, a variation in whether cohort specific definitions of attrition are used creates a further obstacle to the broad study of nursing student attrition.

To better understand the potential variety of methods used to measure nursing student attrition, ATI undertook a web based survey of 120 randomly selected U.S. nursing programs.

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Of the 120 surveys distributed, 52 responses were received (43% response rate). Survey responses included both PN (n=21) and RN (n=31) program types. From the 52 nursing programs that responded, 18 unique variations in attrition calculation methods were identified. Additionally, 12% of programs reported that they did not actively measure attrition. Of the programs measuring attrition, the most common variations in the calculation methods were a result of:

"… 18 unique variations in attrition calculation methods were identified."

- whether transfer students were included in the attrition calculation
- whether students taking time off were included in attrition calculation
- whether a time span is specified in the attrition calculation
- the amount of time used to compute attrition (i.e., semester, annual, entire program duration)

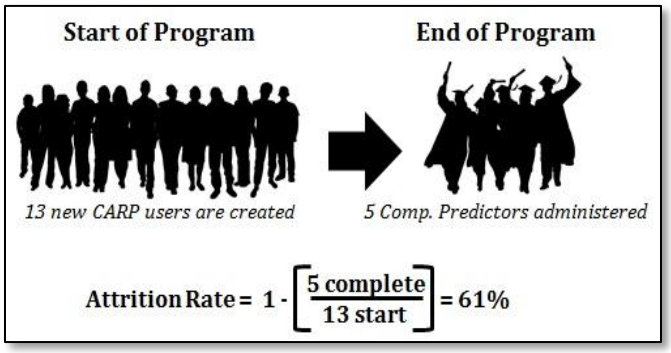
The presence of variation in state and program level attrition calculation methodologies has many implications. For the purpose of this paper, the noteworthy implication is that reported attrition rates are an inconsistent source of data when examining performance of ATI's products.

CONSISTENTLY MEASURING ATTRITION

Due to the inconsistencies across programs with regard to the calculation of student attrition, ATI sought another way to calculate attrition rates. The result of this effort was an attrition metric that is based on students' ATI product usage. Although ATI's products are used in nursing programs throughout the United States, consistent attrition rates could only be calculated for a subset of programs that use a specific combination of products. Specifically, attrition rates were only calculated for graduating classes/cohorts using ATI's Comprehensive Assessment and Review Program (CARP). In addition to supplementing and supporting nursing curriculum, the CARP product offers unique insights into student attrition due to its inclusion throughout a nursing student's academic career. For example, at the beginning of any nursing program cohort, a set number of users are granted access to CARP content. Furthermore, at the conclusion of a nursing program, any remaining students within the same cohort typically use ATI's Comprehensive Predictor assessment. As a result, the CARP product and its associated Comprehensive Predictor assessment are able to serve as an effective, product based, proxy for starting and ending class sizes for any given nursing student cohort (see Figure 1).

Given class level tallies of nursing students at the beginning and conclusion of a specific cohort, it only requires basic arithmetic to calculate class level student attrition. Aside from allowing ATI to evaluate its products' impact on nursing student attrition, a consistent attrition metric also allows for insights into national trends in nursing student attrition. As ATI is used in roughly 75% of all U.S. nursing programs, this common attrition metric enables us to achieve a representative understanding of the attrition rate of nursing students across the United States. In particular, ATI's calculated 2011 national nursing student attrition rate was 28%. This rate is slightly up from the previous year's 27% attrition rate and 2009's 26% attrition rate. A consistent attrition metric is an important first

Figure 1. Calculating product based attrition

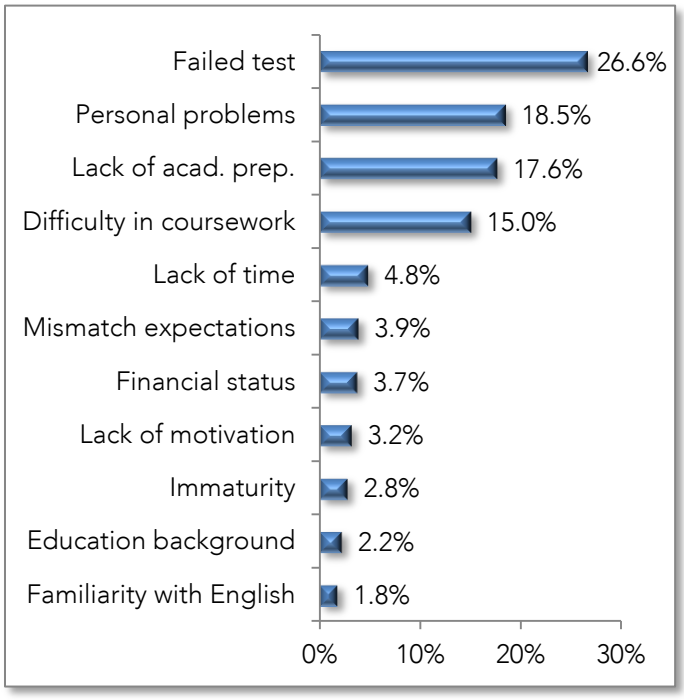


step in the large scale study of nursing student attrition; however, it is important to understand exactly *how much attrition is academically driven?* As it is unreasonable to assume that ATI's products would impact attrition associated with unforeseen life events (e.g., personal health issues), it becomes important to understand the frequency that nursing programs report academic problems as their primary source of nursing student attrition.

A PRIMARY SOURCE OF ATTRITION?

To explore the primary reasons for nursing student attrition, an additional survey of ATI customers was undertaken. Of all customers invited to participate in the survey, 729 nurse educators (spanning 529 nursing programs) completed the survey. As part of the survey, respondents were provided 11 common reasons for student attrition and asked to rank these reasons to reflect their programs' most common sources of nursing student attrition. As can be seen in Figure 2, 61% of institutions rated academic sources of attrition (failed test, lack of academic preparedness, difficulty in coursework, and educational background) as their primary reasons for nursing student attrition, whereas the personal sources of attrition were cited as a primary source of attrition by 39% of institutions.

Figure 2. Primary reason for nursing student attrition



CONCLUSION

The research outlined in this paper highlights the inconsistent methods used by U.S. nursing programs when measuring nursing student attrition. Despite widespread inconsistencies in attrition calculation methodologies, ATI is able to leverage its product usage database in order to achieve a broad understanding of nursing student attrition. In addition to outlining this product-based proxy for nursing student attrition, the research outlined in this paper identifies academic sources of attrition as being the most commonly cited reason for nursing student attrition. As such, this paper represents an important first step to the study of nursing student success and how ATI products can affect it. For further reading into how ATI product usage relates to lower program level attrition rates, please visit: http://www.atitesting.com/Resources/research.aspx

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